

SYSTEM AND METHOD FOR EMULATING THE OPERATION OF A
VIDEO GRAPHICS ADAPTER

ABSTRACT OF THE DISCLOSURE

5 A method for emulating the functionality of VGA hardware, wherein the emulator
program of the present invention maintains a set of tables that permits the emulator program to
branch to a function customized for both the instruction and the operating mode of the VGA
hardware. When the customized function has already been generated, the emulator will
10 automatically dispatch directly into the customized function. If an instruction is executed at a
time when the VGA operating mode has changed, the addresses of the customized functions are
loaded from a second table. If a customized function is not present, a customized function is
generated and the tables are updated to point to the addresses of the newly created customized
function. As the VGA hardware is switching among operating modes, a customized function is
15 not generated until such time when an actual instruction is executed for the VGA hardware.